

This document contains the Connecticut regulations for Minimum Stream Flow Standards. This document was prepared by the State of Connecticut Department of Environmental Protection and is provided for the convenience of the reader. This is not the official version of the regulations. The official regulations are published by the State of Connecticut, Judicial Branch, Commission on Official Legal Publications in the Connecticut Law Journal. In the event there is inconsistency between this document and the regulations as published in the Connecticut Law Journal, the Connecticut Law Journal publication will serve as the official version.

Minimum Stream Flow Standards

Sec. 26-141a-1. Title

These regulations shall be known as the Minimum Stream Flow Standards and Regulations of the Connecticut Department of Environmental Protection.

(Effective April 24, 1979)

Sec. 26-141a-2. Definitions

As used in these regulations,

- (a) "Commissioner" means the Commissioner of Environmental Protection.
- (b) "Calendar month water surface elevations" is a listing of the pond elevations at the first of each calendar month which have occurred or would result from historical flows, the available storage, and the current demand.
- (c) "Discharge device" means any gate, valve, pipe, spillway, tainter gate, flashboard, tailrace or similar means of conducting water from above an impoundment or diversion to the watercourse below.
- (d) "Diversion" means a structure which removes water from a watercourse, which does not return substantially all of the water so removed directly and promptly to such watercourse. Diversions shall include, but are not limited to, structures used for water supply, irrigation, industrial use, power production, and recreation. Diversions shall not include combined impoundment diversion structures which shall be classified instead as impoundments.
- (e) "Drainage area" means that portion of the watershed upstream from the subject structure which catches and conveys all runoff to the structure.
- (f) "Impoundment" means a dam, dike, reservoir, or other structure, constructed to seize and hold water by effectively blocking the flow of a watercourse. Impoundments shall include, but are not limited to, structures used for water supply, industrial use, power production and recreation. Impoundments shall not include small retaining walls constructed for the sole purpose of keeping diversion pipes or structures submerged or dry flood control dams, but shall include all other combined impoundment-diversion structures.
- (g) "Operator" means any person who, or the responsible administrative or executive officer of any organization which owns, operates, or proposes to construct any impoundment or diversion on a stocked river or stream system within the State.
- (h) "Release" means any discharge by means of a valve, gate, penstock, pipe, spillway, flashboard, turbine, or from leakage, seepage, condensation, precipitation on the structure, or from any source which becomes part of the flow downstream of the structure.—
- (i) "Safe yield" means the maximum continuous supply which can be anticipated from the watershed with the available storage during a period of years in which occurs a year as dry as one in twenty.
- (j) "Stocked watercourse" means any watercourse and its tributaries into which the Commissioner or his agent shall have ordered or directed to be placed therein any species of trout, charr, salmon or their hybrid, or any other commercial or game fish, regardless of age or size.
- (k) "Water supply emergency" means a combination of climatological water demand, water quality, or structural problems which could cause a grave situation which these regulations could worsen or which their suspension could help alleviate.

(Effective April 24, 1979)

Sec. 26-141a-3. Jurisdiction

(a) These regulations shall apply to any dam or other structure which impounds, or diverts waters, located on those watercourses which are listed in an annual publication by the Commissioner of stocked watercourses and their tributaries, or parts thereof, the flow of which he finds reasonably necessary to the protection and maintenance of such stocking, which are in operation on the effective date of these regulations or which subsequently commence operation.

(b) Except that the following impoundments and diversions shall be exempt from these regulations:

- (1) those at locations with drainage areas of less than three (3) square miles in area;
- (2) government operated flood control dams;
- (3) those which discharge directly or through a stream less than one mile in length into a reservoir, lake, pond, or tidal waters unless the Commissioner has found that such stream has a unique value to the natural or stocked wildlife;
- (4) those which return substantially all the daily inflow to the same watercourse in the immediate vicinity or in the case of existing impoundments and diversions, in the locations where releases normally occur;
- (5) those which have no capability of controlling the discharge; and
- (6) those exempted by action of the Commissioner under Section 26-141a-4.

(c) Compliance with these regulations shall not affect, impair, or infringe upon any property or contractual rights which may have existed prior to the effective date of these regulations and which require greater releases.

(Effective April 24, 1979)

Sec. 26-141a-4. Variances

(a) The operator of any diversion or impoundment or any person who proposes to construct a diversion or impoundment may petition the Commissioner at any time for an exemption or variance for any such structure from the minimum flow and freshet release standards of these regulations. The petition shall contain information sufficient to allow the Commissioner to give adequate consideration to the effect, in terms of the factors enumerated below, of the operation of the structure under such an exemption or variance on the stocked river or stream system in question. The Commissioner may require additional information prior to acting on such a petition. Notice of the granting of an exemption or a variance shall be published in a newspaper of general circulation in the municipality or municipalities wherein the affected structure or river or stream system is located.

In determining whether to grant an exemption or variance under this section, upon receipt of a petition from the operator of an impoundment or diversion, the Commissioner shall include, but is not limited to, consideration of whether operation of the structure will:

- (1) Prevent the maintenance of viable pools, channels, or other water basins, or allow their undue depletion by normal evaporation and aquifer absorption;
- (2) Reduce oxygen content below minimal levels, cause stagnation, or inhibit reproductive cycles (where that potential exists);
- (3) Prevent the preservation, protection and safe maintenance of the river and stream stocking program, the natural aquatic life contained in such waters (including anadromous fish), and the natural or stocked wildlife dependent upon the flow of such water, and the availability of such water for public recreational uses; or
- (4) Meet the needs and requirements for public health, flood control, industry, public utilities, water supply, water quality, electric power production, public safety, agriculture, and other lawful uses of such waters.

Any such exemption or variance may be revoked, after a hearing at which the operator shall have an opportunity to present evidence in support of retention of the exemption or variance, if the Commissioner finds, upon consideration of the factors enumerated above in this section, that there exists a change in the conditions surrounding, or manner of operation of, the diversion or impoundment, sufficient to materially and adversely alter the circumstances under which such exemption or variance was granted.

(b) Upon the receipt of a petition or request for the declaration of a water supply emergency from any operator, from the chief executive officers of municipalities wherein the affected structure or the impaired stocked river or stream system is located, from the State Commissioner of Health, and Public Utilities Control Authority, or upon the receipt of any information from a recognized authority that an emergency exists or may be likely to exist in the immediate future, the Commissioner shall immediately commence departmental proceedings to determine the nature and extent of such water shortage, its causes and consequences, the likelihood of its natural amelioration or termination, and the need for the suspension or minimum flow standards with regard to particular impoundments or diversions, or within an entire region, or within the entire State. The Commissioner shall render his decision within three (3) working days of the receipt of a water supply emergency petition.

In determining whether a water supply emergency exists or is likely to exist in the immediate future, the Commissioner's considerations may include, but are not limited to, the following factors:

(1) Runoff or rainfall statistics for the watershed area for the period in question as compared with average runoff or rainfall over preceding years for comparable periods;

(2) Impoundment levels or volume of diversion as compared with levels or volumes at the same season in previous years;

(3) Peculiar or unusual demand situations or requirements to protect water quality;

(4) Peculiar or unusual water capture problems; and

(5) Unusual health, safety, power, or other crises imposing increased demands on water supplies.

(c) The Commissioner may modify the operation of minimum flow standards beyond the time at which incoming supplies, or losses, or use patterns of water return to normal, so that water supply deficits may be corrected.

(d) All declarations of water supply emergencies shall contain:

(1) The structures or stocked river or stream systems over which the operation of minimum flow standards shall be suspended;

(2) The duration of such modification, if for a definite term, or the conditions upon which the modification shall terminate if for an indefinite term; and

(3) Notice of the right of aggrieved persons to a hearing to appeal such modification, provided that such appeal, while pending, shall not enjoin the operation of such modification.

(e) All declarations of water supply emergencies shall be published in a newspaper of general circulation in the municipality or municipalities wherein the emergency exists, and a certified copy shall be sent to all operators of affected impoundments and diversions, the chief executive officers of municipalities wherein the affected structure or the impaired stocked river or stream system is located, the State Commissioner of Health, and the Public Utilities Control Authority.

(Effective April 24, 1979)

Sec. 26-141a-5. Filing requirements

(a) Operators of existing impoundments or diversions subject to these regulations shall file the following information within twelve (12) months after the effective date of these regulations. Operators of new impoundments or diversions subject to these regulations shall file such information three (3) months before the start of operation of such facilities.

(1) Name of structure; name, address and telephone number of owner and operator; location of structure on U.S. Geological Survey topographic map; purpose and use of structure; location of discharge.

(2) Drainage area above structure; reservoir capacity at various elevations; stream flow records; the safe yield of the facility; demand requirements.

(3) Frequency of recurrence of water surface elevations on the first day of each calendar month. Such water surface elevations and the frequency of occurrence may be corrected to what they would have been under conditions of current demand and current diversion requirements.

(4) Type, capacity and control capability of all discharge devices.

When two or more structures are operated as a single facility and the safe yield is interdependent, the method of operation shall be described, including the anticipated method of compliance with the requirements of Section 26-141a-6.

(b) Such data for new structures or for existing structures when not available from records shall be computed by standard engineering methods which methods shall be clearly outlined in the submission and approved by the Commissioner.

(c) Operators shall, within sixty (60) days, report any changes in data provided in accordance with this section. (Effective April 24, 1979)

Sec. 26-141a 6. Flow requirements

(a) Subsequent to the approval by the Commissioner of the information filed under Section 26-141a-5, the operator of any impoundment or diversion subject to these regulations shall cause a release on each day of the current month a daily flow not less than that computed by multiplying the drainage area by the appropriate flow obtained from the following table:

**Required Daily Average Releases in Cubic Feet
per Second per Square Mile of Drainage Area**

Percent of Safe Yield Utilized

Existing Impoundments

| | 0 | 75 | 85 | 95 | 100 | |
|------|---|-----|-----|-----|-----|------|
| 100- | | | | | | -100 |
| | | .20 | .15 | .10 | .05 | .01 |
| 50- | | | | | | - 50 |
| | | .15 | .10 | .05 | .01 | .01 |
| 20- | | | | | | - 20 |
| | | .10 | .05 | .01 | .01 | .01 |
| 10- | | | | | | - 10 |
| | | .05 | .01 | .01 | .01 | .01 |
| 5- | | | | | | - 5 |
| | | .01 | .01 | .01 | .01 | .01 |
| 0- | | | | | | - 0 |

| <i>New Impoundments</i> | | | | | |
|-------------------------|-----|-----|-----|-----|-----|
| 100- | .25 | .20 | .15 | .10 | .05 |
| 50- | .20 | .15 | .10 | .05 | .02 |
| 10- | .15 | .10 | .05 | .02 | .02 |
| 5- | .10 | .05 | .02 | .02 | .02 |
| 0- | | | | | |

For impoundments—percent chance of occurrence of corrected calendar month water surface elevations being equal to, or lower than, the elevation on the first day of the current month.

For diversions—percent chance of occurrence of previous calendar month flow being equal to, or lower than, the actual flow during the previous month.

(b) Except that flow rates equal to, or exceeding, the mean inflow rate for March shall be allowed to pass during any consecutive five (5) days from February 15 to March 15. If the required Daily Average Release is below 0.20 cubic feet per second per square mile of drainage area, the number of days of such release of March mean inflow shall be reduced in accordance with the following table:

| <i>Required Daily Average Release</i> | <i>Required Number of Days of Release of March Mean Inflow</i> |
|---|--|
| 0.15 | 4 |
| 0.10 | 3 |
| 0.05 | 2 |
| 0.01 | 1 |

(c) The required daily releases shall be at a constant instantaneous rate throughout the day unless a variance is granted under Section 26-141a-4. (d) The releases required by this section shall be determined in the watercourse immediately below the impoundment or diversion, or in the case of existing impoundments or diversions, in the locations where releases normally occur.

(e) All impoundments or diversions placed in operation subsequent to the effective date of these regulations shall include discharge devices with adequate controls to provide the required releases.

(f) Except for flows required by (b), no release shall be required which is in excess of the natural flow of water into the impoundment or diversion on that day.

(g) If the impoundment or diversion is downstream of an impoundment or diversion which is in noncompliance with these regulations, the required releases may be reduced to the extent of the upstream noncompliance.

(h) Releases shall not be made through discharge devices which the Commissioner has found will discharge water of unsatisfactory quality for the preservation, protection or safe maintenance of the natural or stocked wildlife.

(Effective April 24, 1979)

Sec. 26-141a-7. Hearing

(a) Any person may request a hearing consistent with the applicable sections of 22a-7-1 through 22a-8-11 of the regulations of the Department of Environmental Protection when they file petitions under Section 26-141a-4 (a) of these regulations. A person aggrieved by the denial of a petition or a request for a Water Supply Emergency Declaration under Section 26-141a-4 (b) of these regulations may request

a hearing consistent with 22a-7-1 through 22a-8-11 of the regulations of the Department of Environmental Protection.

(Effective April 24, 1979)

Sec. 26-141a-8. Conflict and severance

(a) Where there is a conflict between the provisions of these regulations and those of any other applicable ordinance or regulation, the provisions of the ordinance or regulation which imposes the most stringent flow standards shall govern.

(b) The invalidity of any word, clause, sentence, section, part, or provision of these regulations shall not affect the validity of any other part which can be given effect without such invalid part or parts.

(Effective April 24, 1979)